

# **OPERATION and MAINTENANCE PLAN**

Eureka Mills Superfund Site, Eureka, Utah

## **INTRODUCTION:**

This Operation and Maintenance Plan (O/M) is incorporated by reference into the amended SSC between the U.S. Environmental Protection Agency and the State of Utah. The SSC generally defines the roles and responsibilities of EPA and the State for the performance of the remedial design/remedial action as well as operation and maintenance.

This O/M Plan further defines the roles and responsibilities of all entities performing operation and maintenance of the remedy at the Eureka Mills Superfund Site. The O/M Plan is distinct from the Operation and Maintenance Manual (O/M Manual) which is part of the Remedial Action Work Plan (RAWP). The O/M Manual defines the technical requirements for maintaining the remedy.

## **BACKGROUND:**

The Eureka Mills Superfund Site is comprised of the City of Eureka and adjoining mine waste areas within the Eureka Gulch valley. The remedial action included the remediation of residential & commercial properties in Eureka as well as capping adjacent mine waste areas and the construction of various drainage controls to prevent recontamination of the remediated areas.

Mine waste areas refer to those mine waste piles, drainage features and haul roads that were constructed and/or remediated by EPA and the State. These mine waste areas are also referred to as Remedial Action Structures (RASs). The mine waste piles, drainage features and haul roads were capped with a geotextile fabric and 18 inches of armor rock material, roadbase material, or topsoil with vegetation.

The residential areas were capped with 18 inches of topsoil with vegetation, roadbase material, armor rock on the slopes or paving material (concrete or asphalt). Permanent structures and sheds are also considered suitable caps for lead-contaminated soils. In a few cases, retaining walls were constructed as part of the cap. The annual RA reports and Construction Completion Report provide specific information about the type of cap applied to a specific mine waste area or a specific residential property.

## **POTENTIALLY RESPONSIBLE PARTIES:**

At this time, EPA has identified five Potentially Responsible Parties (PRPs) who are responsible for the contamination at the Site. In 2004 -2005, EPA settled with Atlantic Richfield Company (AR) and with Union Pacific Railroad (UPRR) who both performed pieces of the remedial action at the Site. Neither of these settlements required the PRPs to perform the on-going operation and maintenance of the remedy. Both of these parties have completed all requirements of their settlements with EPA.

EPA's settlements with the other PRPs were based on an "inability-to-pay" and therefore those PRPs did not perform any remedial action. The PRPs who settled with EPA based on an "inability-to-pay" included the following parties:

- North Lily Mining Company - EPA's settlement with North Lily Mining Company (NLMC) provided for access to certain land holdings for topsoil and water rights used in the remedial action.
- Chief Consolidated Mining Company - The settlement for Chief Consolidated Mining Company (Chief) provided access to all their land holdings within the Site for the performance of the remedial action. In addition, Chief's settlement allowed EPA access to other land holdings for the production of topsoil, rock materials and for access to water rights to be used for the remedial action. The settlement allowed the construction of an on-site repository for the disposal of contaminated soils from the residential areas during the remedial action and for the construction of an Open Cell for disposal of contaminated soils due to future development after the completion of the remedial action. Finally, Chief's settlement also provided for the sale of certain land holdings with the proceeds to be allocated to certain priority lienholders and then to EPA as a partial offset of Chief's liability.
- Spent Hansen, Keystone Surveys Inc., Bullion Beck Mining Co. & Godiva Silver Mines, Inc. - EPA's settlement with Spent Hansen, Keystone Surveys, Inc., Bullion Beck Mining Company; and Godiva Silver Mines, Inc. (a.k.a. Spent Hansen et al.) requires Mr. Hansen to provide access to land holdings within the Site for EPA to conduct of the remedial action and for Mr. Hansen to perform operation and maintenance activities on certain mine waste areas (a.k.a. RASs) owned in part or in total by him and/or his companies to the extent he is financially able to perform the required activities. Spent Hansen also agreed to accept ownership of seven parcels (see Attachment ??) of land adjoining the Gemini mine waste pile that EPA purchased in order to remediate the mine waste pile. Once EPA has filed the Environmental Covenants on these parcels, EPA will transfer ownership to Spent Hansen.

The details of EPA's settlements with each of the named PRPs can be found in their respective settlement documents. The major portion of the remedial action at the Eureka Mills Superfund Site was performed by EPA and the State as shown in the Attachments described below.

## **ROLES AND RESPONSIBILITIES:**

### **General:**

Operation and maintenance at the Site will be performed in accordance with the requirements in the Operation and Maintenance Manual dated October 7, 2008. Three parties will be responsible for the performance of the operation and maintenance at the Eureka Mills Superfund Site. The three parties are:

- Spent Hansen et al.
- City of Eureka
- State of Utah – Department of Environmental Quality

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Under his consent decree with EPA, Spenst Hansen et al. has agreed in the first instance to assume the O/M responsibilities for certain RASs that are part of the Fund-Lead RA, pursuant to his settlement with EPA. The State has agreed to perform O/M on the Knightsville sediment ponds, which were constructed by Atlantic Richfield Co.

Under the Amended SSC, the State has agreed to conduct O&M on those portions of the Site that are currently the responsibility of Spenst Hansen et al. (PRP-Lead portions of the Site) should Spenst Hansen et al. no longer be able to conduct that O&M. Under that circumstance, the State will conduct Spenst Hansen et al. O&M with special account funds. For a complete summary of O/M responsibilities on various RASs of the Site, see the table in Attachment ?? In addition, maps showing the various areas of responsibility are provided as attachments and described below:

The following areas are included as the Fund-Lead RA: (1) residential areas; (2) Chief Mine No.1; (3) Chief Mill Site No. 1; (4) Chief No. 1 Mill Tailings/Chief Mill No.1; (5) Eureka Hill Waste Rock; (6) Eagle Blue Bell Mine, Transition and Dump; (7) Snowflake Mine; (8) Open Cell; (9) OU-02 consisting of the Gemini Mine, Bullion Beck Mine and Bullion Beck Mill; (10) Drainages, Gulches/Haul Roads and Sedimentation Ponds (excluding Knightsville Sedimentation Ponds); and (11) Secondary Water System and Well. The Fund-Lead areas for the RA are shown in Attachment A.

Attachment B shows the RASs that have been remediated by PRP-lead cleanups. Those areas include May Day Mine, Godiva Mine and Tunnel; Knightsville Sedimentation Ponds and Upper Eureka Gulch.

Attachment C shows those RASs where Spenst Hansen, et al., as named PRPs will perform and bear the costs of the O&M in the first instance. The State has agreed to perform the O&M on these areas if Spenst Hansen et al. is no longer able to perform the O&M.

Attachment D shows the RASs where the State has agreed to perform O&M.

Attachment E shows Upper Eureka Gulch which was remediated by Union Pacific Railroad (UPRR) who is a PRP before they transferred ownership of the property to the City of Eureka. The City of Eureka plans to divide the Upper Eureka Gulch area into parcels that residents will purchase for residential use. The City will retain ownership of the gulch itself and maintain the gulch as part of its responsibilities under FEMA (Federal Emergency Management Agency) floodplain ordinance requirements. An Environmental Covenant (EC) which was filed by UPRR on the gulch itself provides further protection on the use and any future alterations to the channel. Owners of parcels in Upper Eureka Gulch will be responsible for maintaining their own property pursuant to any local ordinances governing residential or commercial properties in Eureka.

### **Specific Responsibilities:**

#### **1. Spenst Hansen et. al.:**

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Pursuant to Section VIII, of the Consent Decree (CD) with EPA, Spenst Hansen et al. agreed to perform and bear the costs of the O/M of the RASs shown in Attachment C. At least on an annual basis, Spenst Hansen et al. will perform all required inspections of each RAS (a.k.a. mine waste area) according to the requirements and timeframes specified in the O/M manual. If any erosion problems or other deficiencies are found during an inspection, Spenst Hansen et al. is required to address the problem in a timely and appropriate manner and in accordance with requirements and specifications in the O/M Manual.

Within six weeks of the annual inspection, Spenst Hansen et al. will submit an annual report to EPA and the State following the annual inspection. For each RAS, an inspection form (provided in the O/M Manual) should be completed as part of the inspection report. This report should identify any problems found during the inspection, explain how the problem will be addressed and provide a schedule for when it will be addressed. Photos need to be taken of areas that are documented in the report, specifically those areas where there are specific problems identified. In addition, a follow-up report is required along with photos documenting that the problem has been addressed unless it addressed prior to submittal of the annual inspection report. The O/M Manual also requires additional inspections and maintenance for unique circumstances – i.e., earthquakes, large-scale flooding, etc.

Paragraph 32 of the CD requires Spenst Hansen et al. to “notify EPA immediately in writing upon determining that the anticipated Work exceeds the Settling Defendants’ financial abilities.” The CD also requires that the notification include the estimated cost of the anticipated Work and a demonstration that Spenst Hansen et al. is incapable of funding the Work. At its discretion, EPA may excuse Spenst Hansen et al. from performing all or part of the Work, whereupon EPA will notify the State of the need for it to assume the responsibility for performing all or part of the Work related the RASs shown in Attachment C.

Section IX, Paragraph 34 of the CD requires Spenst Hansen et al. to accept title to seven parcels of property that EPA acquired to remediate the Gemini mine waste pile. Spenst Hansen et al. is therefore responsible to conduct O/M on these parcels. After the Court approved the CD, EPA only acquired only six of the seven parcels which were incorporated into the remediation of the Gemini mine waste pile. Spenst Hansen et al. is not required to perform O/M on the final parcel which was remediated as a residential parcel because it is privately owned and any excavation or maintenance activities will be governed by the City’s Excavation Ordinance.

## **2. City of Eureka:**

The following description of the City’s responsibilities is predicated upon the City adopting an ordinance governing future excavation activities associated with future development or re-development in Eureka. There are four basic elements to the City’s responsibilities

- Adoption, administration and enforcement of an ordinance to govern future excavation activities in the City of Eureka as shown in Attachment ??
- The day-to-day operation of the Open Cell and the management of the stockpile material for excavation permits as shown in Attachment ??

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- Assuming possession but not O/M of three land parcels acquired by EPA for the performance of the remedial action as shown in Attachment ??
- Maintenance of the Eureka Gulch in Upper Eureka Gulch as shown in Attachment ??

Administration & Enforcement: EPA and the State have been working with the City to develop an ordinance to govern future excavation activities and thus to ensure the protection of the remedy for the non-mine waste areas after the cleanup is complete. Once the City has adopted the ordinance, EPA and the State will be available to mentor the City during an initial period of the implementation. During the remedial action, EPA (or its representatives) has a continual presence on-site and can assist the City with reviewing permits and overseeing the excavation activities. Once the remedial action is complete, the State to a lesser degree will be able to assist the City as it becomes more familiar with the requirements for administering the ordinance. In addition, initially the City may need some assistance in how to implement the enforcement of its ordinance. EPA and the State can offer administrative assistance by coaching the City on how to document activities and decisions associated with a permit or violation

Open Cell & Management of Stockpile Materials: The City will be responsible for the day-to-day operation of the Open Cell in accordance with the requirements of the O/M Manual. The Open Cell will be operated for the proper disposal of contaminated soils that arise from excavation activities under a permit or from "Exempted Activities" (as defined in the Excavation Ordinance). The Open Cell is only for the disposal of lead contaminated soils from within the Eureka City limits.

The City will be responsible for unlocking and locking the gate each day any time disposal is scheduled in advance through the City office. The City will be responsible for overseeing and directing the property owners or their contractors in the placement of each load within the Open Cell. The City will also be responsible for opening the gate for a resident who has a small amount of contaminated soil for disposal (as defined under Exempted Activities). The Open Cell should be locked at all times unless disposal has been scheduled with the City Office. The City will also be responsible for filling and draining the tire wash at the Open Cell in accordance with the O/M Manual and instructing the contractor or resident on the proper use of the tire wash.

EPA and the State will provide the City with stockpiles of clean soil and clean roadbase material for use after the remedial action is complete. The stockpiles will be located in an area approximately one mile east of Eureka on property that is owned by the City. The purpose of the stockpile materials is to provide clean materials for future development of the Open Lands areas that will not be cleaned up by EPA. It will be the City's responsibility to keep the gate locked to this area and to carefully manage the distribution of the stockpile materials since once they are depleted it will be the responsibility of property owners to provide their own clean topsoil or roadbase material. Because of Eureka's remote location, clean material may have to be hauled a long distance. Once the stockpiles have been depleted, the City will need to require detailed information of clean material (and possibly chemical analysis pursuant to Appendix A of the Ordinance) that is brought into the City.

Possession of Three Land Parcels: In a letter dated July 24, 2003 the City agreed to take possession of three land parcels from EPA upon completion of the remedy. These land parcels and their legal description are shown in Attachment ?? The City

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agreed to take possession so long as the City was not required to perform the long term O/M of the remedy on these parcels. All three parcels are part of much larger remedial action structures for which the State has agreed to assume the responsibility for the O/M.

Eureka Gulch: The City has responsibility for the maintenance of Eureka Gulch flow channel as part of its responsibilities under the FEMA floodplain ordinance. In addition, Eureka Gulch in the Upper Eureka Gulch area is protected from changes by an Environmental Covenant (EC) that UPRR filed prior to transferring the land to the City. The EC for this portion of Eureka Gulch only extends only to the top of channel bank and requires that EPA and the State approved any proposed changes to the channel. All of Lower Eureka Gulch extending west of the City Hall parking lot to the western site boundary is also protected by ECs filed by UPRR, Spenst Hansen et al. and by Chief for their land parcels associated with the Gemini-Bullion Beck RAS.

Reporting: The City will submit an annual report to the State within eight weeks following the end of the calendar year on their administration of the ordinance, including the day-to-day management of the Open Cell and management of the stockpile materials and the maintenance of Eureka Gulch. The report should summarize the following information:

- The number of permits issued and the inspections for compliance with the permits as well as the size of the excavation.
- The timeframe between when excavation began and when any contaminated areas have been covered.
- The volume of material that has been disposed of at the Open Cell for each permit.
- Any enforcement actions that were taken.
- The number of property owners disposing of a small amount of contaminated soil for an Exempted Activity.
- The amount of topsoil and the amount of roadbase material that was distributed from the stockpiles at Homansville for each permit or the amount of other material that was imported from another source.
- The specific location of this other source of material and chemical analysis, if required.
- Inspection photos for each excavation permit issued during the year and,
- A discussion on any problems incurred during the year and how the problems were resolved.

Should a unique situation arise, the State or EPA may require the City do more frequent reporting (i.e., quarterly) until the situation is under control.

### **3. State of Utah – Department of Environmental Quality:**

The major elements of the State's responsibilities include the following:

- Operation and maintenance of all RASs except to the extent those RASs are addressed by Spenst Hansen et al.
- Assumption of O/M for the RASs when Spenst Hansen et al. is no longer able to perform the O/M.

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- Oversight of the City's administration of the Excavation Ordinance and its daily management of the Open Cell.
- The annual grading and hydromulching of the Open Cell.
- The final closure of the Open Cell when it has reached its capacity.
- Administration of the Special Account funds transmitted to it by the EPA for the City's efforts administration of the Excavation Ordinance and the day-to-day management of the Open Cell.
- State Assurance on the Transfer of Lands.
- Assist EPA with the Five-Year Reviews for the Site.

Operation and Maintenance of RASS: The State of Utah, Department of Environmental Quality (UDEQ) has responsibility to perform and bear the cost for the operation and maintenance of the RASS in Fund-lead areas as shown on the map in Attachment D & on the table in Attachment ???. The State has also agreed to perform the O/M for the Knightsville sediment ponds which were constructed by AR. At a minimum, the State will perform an annual inspection of each area in accordance with the requirements specified in the O/M Manual and document each inspection on the inspection sheets developed for each RAS. If any problems are found during the inspection of these areas, the State needs to address them in a timely manner. The O/M Manual also requires additional inspections and maintenance for unique circumstances – i.e., earthquakes, large-scale flooding, etc.

Future O/M Currently Performed by Spent Hansen et al.: The State has agreed to assume the responsibility to perform and bear the cost for O/M of the areas shown in Attachment C when Spent Hansen et al. is no longer able to perform or bear the cost of the O/M. While EPA will determine if Spent Hansen et al. has other financial resources, it may be necessary for the State to step in and perform the O/M in a timely manner while EPA makes its determination. At a minimum, the State would perform the annual inspection and document the inspection on the inspection sheets. The State would also be responsible for addressing any problems that might be found during the inspections. If a unique circumstance were to occur such as an earthquake or large-scale flooding, additional inspections and maintenance may be necessary.

Oversight of the City: The State will oversee the City's administration of the Excavation Ordinance, their management of the Open Cell and distribution of the stockpile materials, its maintenance of Eureka Gulch and review of the City's annual report. Initially, the level of the State's oversight of the City's activities may be higher but once the City becomes more familiar and confident in their responsibilities, the State's oversight role should decrease.

Annual Maintenance of the Open Cell: The State is responsible for the annual grading and hydromulching of the Open Cell in accordance with the requirements in the O/M Manual. Depending on the amount of activity at the Open Cell, this may be required on a more frequent basis.

Final Closure of Open Cell: The State will be responsible for final closure of the Open Cell when the capacity is reached. Closure will entail a grading the final lift of contaminated soil and hydro-seeding the graded top to re-vegetate in accordance with the RAWP and the O/M Manual. Once the Open Cell is closed, the State will be responsible for conducting an annual inspection and performing any necessary maintenance.

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Management of Special Account Funds: The State will administer the Special Account Funds for the Eureka Mills Superfund Site to fund the City's administration of the Excavation Ordinance and the daily management of the Open Cell. EPA will transfer the Special Account funds to the State for the expressed purpose of the administration of the Excavation Ordinance and management of the Open Cell.

State Assurance on Transfer of Lands: The State has agreed to accept the transfer of lands purchased by EPA for the implementation of the RA should EPA be unable to complete the transfer of title to the previously designated parties – i.e., Spent Hansen et al. or the City of Eureka or to another person or entity. In that instance, the State has provided their assurance that it will accept title to such parcels upon completion of the remedial action.

Reporting: The State will prepare and submit an annual report to EPA within 8 weeks of each annual inspection. The annual report shall include:

- Meetings between the State and the City that summarizes the City's work, assistance provided by the State, and any problems encountered;
- A summary of any activities at the Site that may impact the remedy;
- Completed inspection sheets, a description of any problems found during the inspections, and their resolution; and
- Photo documentation of the inspection areas including a drive-thru inspection of the residential areas.

Should a unique situation arise, EPA may request that the State do more frequent reporting (i.e., quarterly) until the situation is under control.

Five-Year Reviews: The State and EPA will jointly conduct a Five-Year inspection as part of the Five-Year Review process. The Five-Year inspection should be conducted during the 2<sup>nd</sup> half of May or 1<sup>st</sup> two weeks of June of each year to allow plenty of time to address any problems in the field during the same construction season. The Five-Year Review inspection will include a meeting with the City and a drive-thru inspection of the residential areas of Eureka. EPA or the State will conduct the Five-Year review and prepare the report for review and concurrence by the State and by EPA at its Regional office and at EPA Headquarters. A Five-Year review will include a review and summary of each annual report prepared by the State, the City and Spent Hansen et al. The Five-Year Review report shall follow the Guidance and include a description of the activities that have taken place during the past five years, any problems that have been encountered and their resolution, any maintenance issues, completed inspection sheets from the Five-Year inspection (same sheets as the annual inspection), and photo documentation of the areas inspected during the Five-Year Review inspection.

#### **MODIFICATIONS to ROLES and RESPONSIBILITIES:**

Any modifications to the roles and responsibilities defined in this plan may be modified without modifying the State Superfund Contract so long as EPA, the State and the City agree in writing to the modifications.

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